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(12) United States Patent Hatta et al.

(54) HOOP WINDING DEVICE, FILAMENT WINDING APPARATUS AND MANUFACTURING METHOD OF TANK

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See application file for complete search history.

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(57) ABSTRACT

There is provided a hoop winding device, comprising: a winding table configured to have an insertion hole formed to place a mandrel at a center thereof; a drive unit configured to rotate and drive the winding table; a plurality of supports on which bobbins with wound fibers are mounted, the plurality of supports being arranged along circumference of the winding table; a first guide section configured to bundle fibers drawn from a plurality of bobbins which constitute a first bobbin group out of the bobbins respectively mounted on the plurality of supports and feed the bundled fibers to the mandrel; and a second guide section configured to bundle fibers drawn from a plurality of bobbins which are not included in the first bobbin group but constitute a second bobbin group and feed the bundled fibers to the mandrel.

8 Claims, 9 Drawing Sheets

